Lab Exercise 7

Creating Multiple IAM Users in Terraform

1. **Create a Terraform Directory:**

```
PS E:\> mkdir terraform-iam-users


    Directory: E:\


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-----         07-02-2024     09:17                terraform-iam-users


PS E:\> cd .\terraform-iam-users\
PS E:\terraform-iam-users>
```

2. **Create a Terraform Configuration File (main.tf):**

main.tf — Extension: HashiCorp Terraform

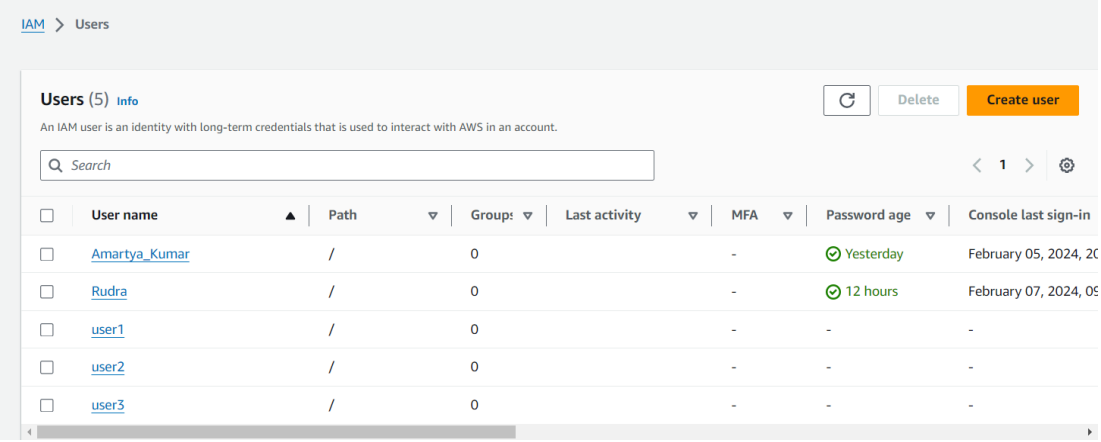
main.tf > resource "aws_iam_user" "iam_users"

```
provider "aws" {
 region = "us-east-2"
 access_key = "AKIAVRUVV37F66GBPTT4"
 secret_key = "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"
}
variable "iam_users" {
 type = list(string)
 default = ["user1", "user2", "user3"]
}
resource "aws_iam_user" "iam_users" {
 count = length(var.iam_users)
 name = var.iam_users[count.index]
 tags = {
 Name = "${var.iam_users[count.index]}-user"
 }
}
```

3. Initialize and Apply:

```
PS E:\terraform-iam-users> terraform init

Initializing the backend...

Initializing provider plugins...
- Reusing previous version of hashicorp/aws from the dependency lock file
- Using previously-installed hashicorp/aws v5.35.0

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.
```

```
        }
      + tags_all      = {
          + "Name" = "user2-user"
        }
      + unique_id     = (known after apply)
    }

  # aws_iam_user.iam_users[2] will be created
  + resource "aws_iam_user" "iam_users" {
      + arn           = (known after apply)
      + force_destroy = false
      + id            = (known after apply)
      + name          = "user3"
      + path          = "/"
      + tags          = {
          + "Name" = "user3-user"
        }
      + tags_all      = {
          + "Name" = "user3-user"
        }
      + unique_id     = (known after apply)
    }

Plan: 3 to add, 0 to change, 0 to destroy.

Do you want to perform these actions?
  Terraform will perform the actions described above.
  Only 'yes' will be accepted to approve.

  Enter a value: yes

aws_iam_user.iam_users[1]: Creating...
aws_iam_user.iam_users[2]: Creating...
aws_iam_user.iam_users[0]: Creating...
aws_iam_user.iam_users[2]: Creation complete after 2s [id=user3]
aws_iam_user.iam_users[0]: Creation complete after 2s [id=user1]
aws_iam_user.iam_users[1]: Creation complete after 3s [id=user2]

Apply complete! Resources: 3 added, 0 changed, 0 destroyed.
PS E:\terraform-iam-users>
```



4. Clean Up:

```
PS E:\terraform-iam-users> terraform destroy
aws_iam_user.iam_users[1]: Refreshing state... [id=user2]
aws_iam_user.iam_users[2]: Refreshing state... [id=user3]
aws_iam_user.iam_users[0]: Refreshing state... [id=user1]

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:
  - destroy

Terraform will perform the following actions:

  # aws_iam_user.iam_users[0] will be destroyed
  - resource "aws_iam_user" "iam_users" {
      - arn           = "arn:aws:iam::381492256715:user/user1" -> null
      - force_destroy = false -> null
      - id            = "user1" -> null
      - name          = "user1" -> null
      - path          = "/" -> null
      - tags          = {
          - "Name" = "user1-user"
        } -> null
      - tags_all      = {
          - "Name" = "user1-user"
        } -> null
      - unique_id     = "AIDAVRUVV37FQL47FTPI4" -> null
    }

  # aws_iam_user.iam_users[1] will be destroyed
  - resource "aws_iam_user" "iam_users" {
      - arn           = "arn:aws:iam::381492256715:user/user2" -> null
      - force_destroy = false -> null
      - id            = "user2" -> null
      - name          = "user2" -> null
      - path          = "/" -> null
      - tags          = {
          - "Name" = "user2-user"
        } -> null
      - tags_all      = {
```